



TWENTY-SECOND PROFESSIONAL SEMINAR OVERVIEW

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If you thought alchemy was a dead science, think again. Let physicist Theresa Bullard, PhD, take you down ancient pathways that lead to new wisdom, if you are open to possibilities.

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“Consciousness: The Endless Frontier,” The Monroe Institute’s Twenty-second Professional Seminar, could just as well have been titled “Back to the Future,” except keynote speaker Thomas Campbell, MS, had no damage to history to repair, unlike Marty McFly, the chief character in the film.

Tom delivered a tour de force [address](#) describing how he and fellow physicist Dennis Mennerich collaborated with Robert Monroe in the early 1970s to design experiments and develop the technology (Hemi-Sync[®]) for creating altered states of consciousness. “Physics, Metaphysics, and the Nature of Consciousness” successfully conveyed the essence of Tom’s *My Big TOE* (Theory of Everything) trilogy in the span of two and a half hours!

The keynote address was followed by an array of fascinating presentations that fit comfortably under its large umbrella.

Joseph Chilton Pearce, MA, drew on themes from his books *The Biology of Transcendence* and *The Death of Religion and the Rebirth of Spirit* to explore how we can transcend the limitations and constraints of our current capacities of body and mind.

Suzanne Evans Morris, PhD, demonstrated the efficacy of Hemi-Sync in facilitating fluent communication between mother and child in infancy despite special situations such as prematurity, chronic illness, gastrointestinal discomfort, and sensorimotor impairment. In a special evening session, Dr. Morris showed and moderated a discussion of a documentary titled [A New Kind of Listening](#) that dramatically and poignantly illustrated how the hidden communication capability of Christian—a child with whom she once worked one-on-one—could be freed with appropriate intervention.

Maurie D. Pressman, MD, gave a brief presentation on how Hemi-Sync can help us to move through the gate from the material to the subtle/spiritual by assisting in overcoming ego resistance.

Carolyn M. Ball, MA, LPC, who has given invaluable assistance in successfully navigating the application process for TMI's certification to provide continuing education credits, gave an upbeat account of the ROTE that launched her on a mission to bring Hemi-Sync out to helping professionals.

James D. Lane, PhD, professor of medical psychology in the Department of Behavioral Sciences, Duke University School of Medicine, described how he and colleague Jon Seskevich developed and tested a simple and brief program of nonsectarian meditation for stress reduction. The program was taught to 200 male and female volunteers who completed a variety of mood and stress questionnaires. Improvement was noted for all measures, with the degree of improvement depending on the frequency of practice. [Brief Meditation Practice Can Improve Perceived Stress and Negative Mood](#), the paper based on the study, was published in *Alternative Therapies in Health and Medicine*, vol. 13, no. 1, Jan.–Feb. 2007, a peer-reviewed journal.

TMI president F. Holmes “Skip” Atwater, BS, reviewed the progress in testing whether mental coherence entrained during the *GATEWAY VOYAGE*[®] can affect sequences of data generated by truly random number generators (RNGs). The investigative design appears to have been fruitful, and [Exploratory Evidence for Correlations Between Entrained Mental Coherence and Random Physical Systems](#) was published by Dean Radin, PhD, senior scientist at the Institute of Noetic Sciences, and Skip in the peer-reviewed *Journal of Scientific Exploration*, vol. 23, no. 3, 2009.

At the reception following the previous Professional Seminar in 2008, Alex Bennet, PhD—cofounder with David Bennet, PhD, of Mountain Quest Institute—shared stories of the breakthroughs made by guests at their research and retreat center, where Hemi-Sync is always on the menu. Urged to share in more detail, Alex and David complied and provided one of the most engaging presentations on the schedule.

“The Seven Stages of Alchemy with *METAMUSIC*[®]” by Theresa Bullard, PhD, was a one-of-a-kind thrill ride and is the feature article in this issue. Enjoy!

This year's Hemi-Sync Intensive was a taste of the [Shaman's Heart](#) residential program facilitated by Byron Metcalf, PhD, and Karen Malik, MA, and was enthusiastically received. Several professional members extended their stay at TMI to enjoy the week-long program that began on the Saturday following the seminar.

In view of all of the outstanding talent displayed at this seminar, who can say what exciting future voyages to the frontier of consciousness may await TMI professional members?

**The program was
taught to 200 male
and female volunteers
who completed a
variety of mood and
stress questionnaires.**



THE SEVEN STAGES OF ALCHEMY WITH *METAMUSIC*[®]

by Theresa Bullard, PhD



Combining a doctorate in physics and an interdisciplinary research background encompassing quantum theory, nanotechnology, origin of life studies, and crystal chemistry, Theresa Bullard embraces and epitomizes the new paradigm of synthesizing knowledge from a variety of fields to create a new synergy. Following a lifelong path of exploring ancient metaphysical teachings, consciousness expansion, subtle energies, alchemy, and holistic medicine, she brings fresh ideas to the new study of science and spirituality. She possesses the much-sought-after ability to communicate these concepts in an inspiring and profoundly practical way that every generation from every background can understand and incorporate for real results.

A writer, speaker, and life-coach, Dr. Bullard has been leading programs in self-empowerment, professional performance, and personal transformation since 2002. She has assisted hundreds of people from all backgrounds in transforming their lives by realizing their unlimited potential. For more information, visit www.eye-ris.org

The Monroe Institute's pioneering work in the studies of consciousness, expanded states of awareness, and the development of technologies using music, suggestion, and binaural beats is a modern example of similar pursuits by the alchemists of old. In fact, the intersections between science, spirituality, consciousness studies, and use of subtle energies share a common history rooted in the ancient tradition of alchemy. The times in our history when the ancient art of alchemy was the science of the day were times when synergy abounded, creativity flourished, innovation blossomed, life was full of wonder, and science was sacred.

In reading this you might be thinking, "Wait a minute, I thought alchemy was an archaic tradition of attempting to turn base metals into gold. What does that have to do with consciousness?" This common stereotype has greatly obscured what the true tradition of alchemy is about. The old "lead into gold" fables were more of a metaphorical language that revealed how we can transform ourselves inside and out as well as purify and perfect raw materials from nature.

What really *is* alchemy then? Alchemy is the epitome of an art and science that has discovered and preserved the secrets of how to expand awareness and harness subtle energies, both macroscopically and microscopically. Ultimately, the primary objective of alchemy is to raise the subtle vibratory frequency of ourselves and the material world by clearing negative patterns, purifying body, mind, and soul, and thereby achieving our full potential. Alchemy holds the keys to both practical methods and deeper understanding for harnessing consciousness to influence the material world, a possibility that is being rediscovered in today's popular culture. It seeks to expand awareness and direct subtle energies to transform nature into a perfected state.

These goals of perfecting nature and the self are achieved in alchemy through a very specific, scientific, and intentional process of seven stages of transformation and purification. At the most simple level, these seven stages involve

1. breaking down the old, imperfect forms to release the essence trapped within;
2. separating out the various essential components that were released to gain clarity;
3. purifying the separate parts to eliminate any impurities;
4. recombining the various purified essences into a more harmonious and balanced whole;
5. raising the energetic vibration of the recombined substance;
6. continuing to refine and purify the specimen through more cycles of separation and recombination; and
7. ultimately transforming or transmuting the original psyche or material into a state of beauty, integrity, and incorruptibility.

Through these seven stages, we take a transformative journey to reclaim and awaken the "gold" within ourselves. Upon completion of an alchemical cycle, a whole new level of consciousness is awakened within, allowing us to experience a greater sense of wholeness and self-actualization.

Music's Role in Alchemy

One of the essential tools used by alchemists to create the inner transformations they sought was music and vibrational energy. Music has long been recognized by many traditions as a powerful tool for expanding awareness and shifting vibration. As Joachim-Ernst Berendt said in *The World is Sound: Nada Brahma: Music and the Landscape of Consciousness*, "Our ears are the gateway to transcendence," and music is the bridge. Musical tones can affect virtually every function in our body. The types of music we listen to can help us improve our health, explore inner realms, and enhance our creative and mental performance.

There is documented evidence that alchemists from around the world frequently used specific types of sound, frequency, and musical instruments in their work. Alchemical artwork often depicts musical instruments somewhere within the setting of an alchemist's laboratory. The alchemists recognized the effectiveness of music for helping them harness their consciousness and entrain their mind and body into coherent, expanded states of awareness. Once in a coherent and elevated state, they were able to achieve quantum leaps in the transformational process.

Alchemists have long held sacred the patterns of creation written upon the face of nature. These patterns—often termed "sacred geometries"—contain certain mystical proportions that are harmonious and conducive to life. One such proportion, known as the golden mean (1.618...), can be found again and again throughout the cosmos, in nature, and also in the human body. Because of its prominence in nature, the alchemists held all manifestations of the golden mean in high regard. The alchemists and philosophers of the ancient Pythagorean Society used a musical scale that was determined by "golden intervals," rather than the modern musical scale we are most familiar with today.

Each of the alchemical stages of transformation is associated with one of the tones on the Pythagorean scale. In addition, each of the seven planets known by the ancients to comprise our solar system was thought to correspond to one of these alchemical notes. In their dance around the sun, the planets were thought to create a celestial symphony called the music of the spheres. It was believed that each of these alchemical notes had transformative properties when acting upon the denser manifestations of physical matter and the human body.

So important is music to the tradition of alchemy that the creation of the first musical lyre was attributed to Thoth-Hermes, the scribe of the gods and father of alchemy, science, astronomy, language, and all subjects of higher learning. This lyre was tuned to the golden mean, or Pythagorean scale. Today, the only instruments that can produce these tones accurately are electronic music programs or instruments such as chimes and of course the lyre, which is specifically designed to be tuned to that scale.

Through experience and observation of natural rhythms, alchemists learned to use the phenomenon of entrainment in their own practice and experiments. First they used it to entrain themselves into the desired state of consciousness, then they used it to create a harmonic field within their environment in order to influence their experiments in a positive way. Whether their experiment was performed upon the self, an individual seeking healing, or an herb or mineral that they were using to create a remedy, entrainment to a higher vibrational state was an essential step in alchemy.

The Alchemical Use of *METAMUSIC*

If alchemists had understood the phenomenon of brain waves and hemispheric synchronization as today's scientists do, and had they possessed tools similar to *METAMUSIC* to achieve the states of consciousness they sought, they would have certainly found their "gold" much faster. Alchemy is already an accelerated path to transformation, and music is essential in achieving that, but *METAMUSIC* allows us to take this even farther and faster.

METAMUSIC is used to create inner transformations within our consciousness, our brains, and our bodies—the very same goals that alchemists had. This "designer music"—combined with its embedded layers of binaural-beat patterns that directly entrain the brain into desired states—is a vital tool for creating the kinds of alchemical transformation needed on the planet today.

In a sense, the Hemi-Sync[®] and *METAMUSIC* technologies already stimulate a kind of alchemical process for the brain. They accomplish several stages of the transformative process in entraining the listener into a whole-brain expanded state of awareness. For example, these technologies guide the listener through a process of first detaching from the outer mundane world, turning inward to the subconscious realm, separating the left and right hemispheric

activities in the brain using binaural signals, and then eliciting synchronization or harmonization between these two sides. This sequence coincides with the first four stages of alchemical transformation. Once the whole-brain state is achieved, the brain is then entrained into an expanded state of consciousness and allowed to rest in this for a while, often revealing a vision or allowing the listener to tap into fresh ideas and inner guidance corresponding to the fifth stage of alchemy. And through immersion programs, such as the *GATEWAY VOYAGE*, this process is repeated again and again: each time going to a new level of expansion and vibration, ultimately leading the listener to connect with a deeper sense of self. This completes the sixth and seventh stages of the alchemical process. The result can be likened to a rewiring of the brain in which new neural connections are formed and the brain functions are transformed into a permanently enhanced state.

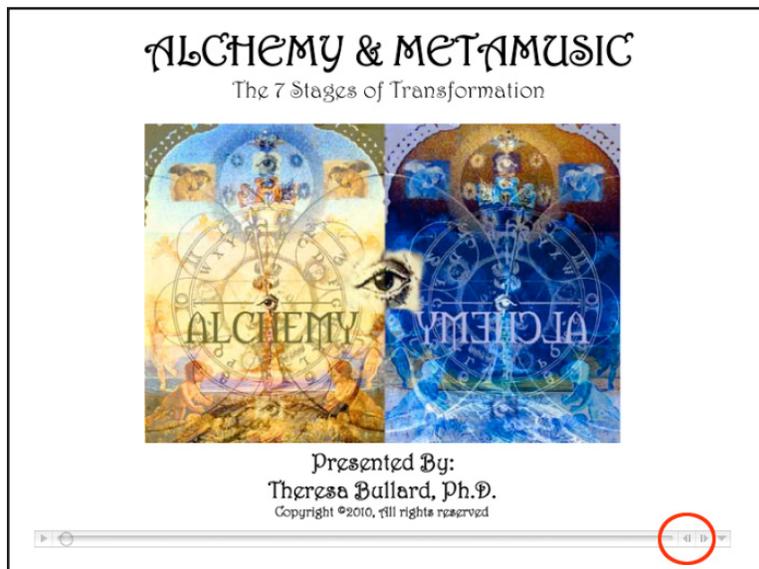
Through understanding the scientific sequence of alchemical transformation, we can further select specific *METAMUSIC* compositions to accompany each stage of alchemy in appropriate sequence for enhanced and expedited transformation. I have done this in my workshops with great success. Selections I have used for this purpose include *Breakthrough*, *Into the Deep*, *Cycles*, *Lightfall*, *Remembrance*, *Touching Grace*, *Between the Worlds*, *Ascension*, *Inner Journey*, and *Higher*. The broad selection of *METAMUSIC* available today allows for a number of options that achieve goals corresponding to each stage of alchemy.

This premise could be taken even further by developing an alchemical *METAMUSIC* series specifically targeted toward eliciting each of the seven stages. For example, by using musical compositions based on the appropriate fundamental note and energy that correspond to each stage, as well as Fibonacci series or golden mean binaural-beat patterns embedded below the music, the user would be entrained to a particular alchemical stage. Doing so would assist individuals to move through these stages with greater ease when they arise naturally, which occurs frequently. What a great melding of both ancient and modern technologies that would be!

My presentation at this year's professional seminar—**Consciousness: The Endless Frontier**—sought to restore awareness of the power of alchemy. An exploration of each of the seven alchemical stages, accompanied by the soundscape of specially selected *METAMUSIC* tracks that match the goals of each stage, was included. Why they were selected for each stage and how they can be used in life, work, and professional practice to elicit the seven stages of alchemical transformation at the appropriate times was explained.

You can download the entire audio presentation here: <http://www.monroeinstitute.org/downloads/stages-alchemy-metamusic/> Note: the introduction is low volume, as the speaker was not using a microphone. Once the actual presentation begins it's loud and clear.

To view the accompanying slide show go here: [The Seven Stages of Alchemy with METAMUSIC](#) Let the entire slide show load and run. Maximize the screen and return to the beginning of the video by using the "back" button on the far right at the bottom of the movie window. Use the "forward" button to click through the slides as the audio plays. (See the illustration below.)



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A SINGLE-SUBJECT CASE STUDY OF TRAUMATIC BRAIN INJURY AND HEMI-SYNC®

by Linda Leblanc



Since her first visit to TMI in 1994 for the GATEWAY VOYAGE®, Linda has returned regularly and has attended at least ten residential programs. She is a professional member and a residential and OUTREACH trainer, facilitating workshops in Cyprus since her accreditation in 2000. With her husband, John Knowles, in 1999 she established a not-for-profit organization, Psychognosia, to disseminate information on parapsychology and consciousness research. She also coauthored with John the Reincarnation Cards® and the companion book, Awakening Far Memory, in 2007. The cards were beautifully illustrated by TMI trainer Patricia Peters (now, Patty Ray Avalon). Linda made history in December 2006 as the first foreigner elected to Cypriot public office and as the first female councillor in Peyia, Cyprus. Moving into a new, high-profile area of influence has provided Linda with even more opportunities to spread the word about Hemi-Sync.

Abstract

Traumatic brain injury (TBI) usually requires lifelong support and therapy. Loss of memory and poor concentration reduce the ability to live a normal life. Patients often suffer from psychological and emotional effects and treatment is expensive, generally including both drugs and cognitive therapy. Four decades of reports by users of the Hemi-Sync binaural-beat sound technology indicate that Hemi-Sync may elicit changes in states of consciousness and result in improvements in physical, psychological, and emotional well-being. The technology could provide a noninvasive, inexpensive, easy-to-use, patient-controlled therapy for TBI.

This small study documents the results of Hemi-Sync use in a single case of old TBI. Over eight months, the subject listened to a variety of Hemi-Sync CDs every day, some musical and some with verbal guidance. She self-monitored general well-being and mental and physical aspects, and she periodically tested herself using the University of Amsterdam National Memory Test online. The memory test showed some encouraging results. The subject reported a definite positive effect on general well-being. She felt less tired and more relaxed and effective on her own, concluding that Hemi-Sync had helped her. To date, there are no clinical studies on Hemi-Sync and brain trauma. It is hoped that this positive result may stimulate more formal research.

Key Words: Hemi-Sync, binaural beats, frequencies, traumatic brain injury, brain waves, memory, well-being

Introduction

This case study was inspired by a pilot study on TBI conducted by Professional Member Signe Klepp, OT.¹

Traumatic brain injury (TBI) is a growing health problem, due to traffic accidents and war injuries. Rehabilitation is a costly and lengthy process that rarely results in full recovery. Patients often require lifelong therapy and suffer from psychological and emotional aftereffects. They lack confidence and have difficulty in leading independent lives. There is a need for effective, noninvasive, patient-controlled therapies to assist them to adjust and to enhance quality of life and well-being.

Robert Monroe, the founder of The Monroe Institute® (TMI), developed Hemi-Sync®, a binaural-beat technology he embedded in music and verbally guided exercises. Over four decades of research and anecdotal evidence show that Hemi-Sync may heighten awareness, enhance memory and concentration, induce deep relaxation, and alter states of consciousness.²

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At my *EXCURSION* workshop held in Cyprus in November 2007, one participant—a fluent English-speaking female Dutch national, born in 1967—presented with a history of severe brain trauma from a car accident in April 1996. The two-day *EXCURSION* course introduces Hemi-Sync sound technology, which facilitates synchronizing the left and right hemispheres of the brain, enabling listeners to accomplish goals by achieving a focused, productive, coherent mind-brain state. Participants experience firsthand beneficial deep relaxation and greater levels of creativity and self-awareness. They explore various states of heightened and expanded consciousness and also learn techniques for overcoming fears and solving problems, as well as how to use these practical tools in daily life.

The subject experienced some dramatic effects during the course. She suddenly recalled/glimpsed life events before the accident that she had forgotten and felt strong physical sensations in her brain. She was intrigued and eager to continue with Hemi-Sync. She is able to express herself eloquently and is very diligent and well organized in recording her experiences, making her an ideal subject. She holds a master's degree in applied social psychology (Tilburg University in the Netherlands). Before the accident, she worked as a psychologist with health organizations and had experience in the design and methodology of research projects.

Patient's Condition and Earlier Treatment

She has not been able to work since the accident in 1996 and receives disability payments from the Dutch government. Her official diagnosis is: "Cerebral contusion with organic psycho syndrome, cognitive function disability and anamnesis. Skull-fracture front-temporal left and orbita left; EEG dated 10 May 1996: mild to moderate diffuse aspecific anomalies and subcortical disturbances. Also, a small left-rostrally localised dysfunction" (translated from the Dutch). She was in a coma for six days and had post-traumatic amnesia of three weeks, which is indicative for severe brain trauma.

The participant has extensive medical documentation of her severe brain trauma, due to periodic testing by Dutch health institutions. Medical reports by neurologists in 1998 and 1999, and by a doctor of the medical insurance company in 2005 with respect to the labor disability judgment, all confirm that her brain injuries persist and that she is in the 80–100 percent disability category for work.

Current Symptoms

She still suffers memory loss from the time of the accident and has problems with recall of her life in general. The subject exhibits short-term memory loss, impaired concentration/attention, slower thinking, difficulties with multitasking, quick fatigue, impaired left-side reflexes, limited hearing in the left ear with occasional balance problems, and double vision when fatigued. Depth perception is decreased and speech articulation is poor. Despite these difficulties, she has an active life—studying Greek and astrology, meditating with a group, posing as a nude life model for artists, traveling, and attending concerts and exhibitions.

Methodology

The author met seven times with the subject over the duration of the study to provide advice on Hemi-Sync use and to discuss reactions. It was emphasized at the outset that an attitude of "no expectations" of any particular results and an openness to the technology would facilitate the process. The subject listened to various CDs almost daily over an eight-month period from December 2007 to July 2008, sometimes five or six times per day, with most of the listening taking place in her home in Cyprus. Generally, she used the CDs a minimum of five times per week, with a maximum of up to thirty times per week. The only exception was one week when she listened once to *MIND FOOD*® *Catnapper* when she was traveling.

Eighteen different CDs were supplied for the project. The exercises fell into three categories: *MIND FOOD*, *HUMAN PLUS*®, and *METAMUSIC*®. *MIND FOOD* provides the experience or benefit while listening. *HUMAN PLUS* contains verbal guidance and Function Command cues to allow the listener to re-create the effect whenever she chooses. *METAMUSIC* contains specially blended binaural-beat frequencies embedded beneath the music to guide the listener into beneficial states of consciousness. Many titles feature blends of alpha, delta, and theta frequencies to support relaxation. Some selections use predominantly beta frequencies for focus and concentration or delta frequencies for sleep enhancement.

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METAMUSIC selections used to enhance concentration were *Remembrance*, *Baroque Garden*, *Einstein's Dream*, *Seasons at Roberts Mountain*, *Indigo*, and *Lightfall*. *MIND FOOD Concentration*, which has a pink-noise background, was also employed.

METAMUSIC Sleeping through the Rain was used for sleep support, along with *MIND FOOD Catnapper* for short naps. *MIND FOOD Surf* and *METAMUSIC Mystical Realms* provided opportunities for relaxation, inner reflection, creativity, and inspiration.

The subject leveraged an array of *HUMAN PLUS* exercises: *Attention*, *Brain Support and Maintenance*, *Imprint*, and *Think Fast* to enhance concentration, develop memory skills, and support mental clarity. *H-PLUS Let Go* was helpful for releasing emotional reactions and patterns. *MIND FOOD Retain-Recall-Release* was added for its easy technique to enhance memory.

One series, *SUPPORT FOR STROKE RECOVERY*, is designed to enable listeners to participate actively in their body's own healing process. The series utilizes relaxation, affirmations, and specific imagery to assist in rediscovering the body's innate healing abilities and for restoring balance.

Results were monitored by self-reporting and by a series of standard memory tests taken several times over the course of the study.

Self-Reporting

The subject wrote fifty pages of meticulous, detailed notes during the thirty-three-week project. Her journals documented the circumstances and results of each session, noting the date, the CD, her experience while listening, her experiences during the rest of the day, and whether she was sitting or lying down. She self-monitored general well-being, mental and physical aspects, and improvements in memory and concentration. Physical aspects included sensations she experienced during sessions—particularly the location in the brain where she felt changes—as well as energy level, sleepiness, fatigue, balance, and visual acuity. The speed of information processing, focus, impulse control, and degree of quietness of mind were also noted.

University of Amsterdam National Memory Test³

The subject tested herself periodically with the online National Memory Test developed by the Psychology Department of the University of Amsterdam. Test results are used for research on memory—including Alzheimer's disease and how human beings store information. It takes about an hour to perform the test. The subject took the test on five separate occasions: December 24, 2007; January 30, 2008; March 9, 2008; June 3, 2008; and July 17, 2008.

The National Memory Test comprises nine individual tests:

Corsi's blocks test. Nine blocks are shown and change color in succession. The purpose is to recall the blocks' sequence of lighting up, then click the blocks in the proper sequence. The sequence becomes longer when more blocks are recalled in the proper order.

Pattern memory. Half the squares on a board change color. A short time is allowed to memorize which squares have changed. Board size increases with correct answers.

Ten-words test. Ten words are offered and are visible for a few seconds. The purpose is to recall as many words as possible. Another task is offered in between, after which one has to type the recalled words. The list is repeated three times.

Digit span test. Numbers are shown in succession. The order of the offered numbers has to be recalled, followed by clicking the successive numbers in their proper order.

Words list. Twelve words are offered every time with each word being visible for 1.5 seconds. At the end, all words that are recalled are typed in. There are four different lists in total.

Color memory. Color and spatial memory are tested. The goal is to find all color pairs with *as few clicks as possible*. The test is repeated three times; color pairs are invariant.

Word list recognition test. The "words list" test was performed earlier. In this recognition test, seven words are offered with the goal of recognizing and choosing those words that appeared in the previous "words list" test.

Story test. Ten sentences are offered within a short story framework. Each sentence is offered for five seconds. This is followed by a nonrelated task, after which different sentences are offered. The purpose is to indicate whether these sentences are *literally* the same as the ones offered previously.

Visual span test. A sequence of pictures is shown that have to be recalled. Then, the pictures must be clicked in the original sequence that they were offered.

The first two sessions covered six tests. The last three sessions included additional memory test segments.

Test results from National Memory Test of University of Amsterdam

Test no. & date	Scores	Ten-words test	Story test	Digit span test	Corsi's blocks test	Words list	Pattern memory	Visual span test	Word list recognition test	Color memory
1 (12-24-2007)	Test score	19	6	17	5	35	191			
	% total	41.38	38.09	76.64	59.15	75.39	47.38			
2 (1-30-2008)	Test score			18	4	38	187			
	% total			83.17	8.56	86.52	38.99			
3 (3-9-2008)	Test score		8		5	36	256	4	72	107
	% total		86.69		59.38	79.53	77.29	45.71	63.37	34.11
4 (6-3-2008)	Test score	27	6	20	6	35	195	4	82	153
	% total	91.95	39.10	90.75	94.87	75.55	61.09	45.77	95.39	10.34
5 (7-17-2008)	Test score	22	7	17	5	37	263	6	76	88
	% total	62.7	65.47	76.81	59.29	83.38	84.64	60.29	80.64	53.70

Data Summary of University of Amsterdam Memory Test

Test results were variable, with some indicating improvement, others showing a decline, some having constant results, and others showing strong improvement. Positive effects are reflected in better scores in the story test, words list test, pattern memory test, and visual span test on June 3 and July 17, 2008. Generally, the results were positive and encouraging, although further testing is needed before drawing any firm conclusions.

Results of Self-Reporting

The subject reported a definite impact on general well-being. She felt less tired, more relaxed, and more effective on her own. She asserted that the "relaxation effect is absolutely significant."

She felt a clear relation between listening to Hemi-Sync (especially *Concentration*) in the evening and getting up earlier and refreshed the next morning. The quality of her sleep improved and she required less sleep. She became more active and did not feel so tired later in the day. Problems with balance and vision were reduced a little.

The subject felt more relaxed about planning and setting priorities for the day. While she could work more coherently at home, she was still distracted by outside sounds while in the company of others and found it difficult to quickly digest a lot of information.

Although a small setback occurred when the subject had a car accident, she reported that listening to Hemi-Sync was a great help in coping with the event.

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Listening to *Concentration* helped her feel more focused and experience more insights and creativity. The *STROKE RECOVERY* series was very effective, especially the guided visualizations in the *Healing Energies* and *Motor Skills* exercises. While listening to *Motor Skills*, she frequently received messages and had recollections. One message was that her left side “would be able to relax more ... and would be able to move as precise[ly] as the right half, with more ability to maintain balance and posture, and move more freely and strongly.”

Her experiences included strong feelings of euphoria, expansion of consciousness, and beautiful visualizations. There were also moments of grief that touched her heart. Sometimes she would suddenly have strong recollections of something in the past or even childhood while listening to *Imprint* and *Motor Skills*. She was quite surprised by that and felt the memories were a “gift.” While listening to *Imprint* she had many good ideas again, with strong, detailed recollection from a year and a half earlier. That seldom happens in such detail.

Her creativity and insights increased and there was more quiet in her head while listening to the exercises. In one visualization a bird appeared in an aura of light and flew toward “another place” that seemed to be her “former self with well-functioning brain.”

For the first time, she had an out-of-body experience (OBE). Many times when listening to *Imprint* she had the sensation of leaving her body and she was conscious of moving up and shifting her state of awareness. She reported on one occasion while listening to *Imprint*: “Strong sensation of going out of my body in phases higher and higher above my physical body but not completely. Nice and very strong experience.” She also had similar OBEs when listening to *Motor Skills* and *Healing Energies* from the *STROKE RECOVERY* series.

She felt happier, satisfied, and more accepting, as well as being at ease and comfortable in her home. Self-doubt decreased and openness increased.

Her cat often sat on her lap during Hemi-Sync sessions. That had never happened before. She liked that very much and felt the cat was also enjoying the sessions.

Somatic Sensations

The low tones in the exercises were very pleasant to the subject and sometimes caused physical sensations at the back/base of her head and brain below her ears.

Listening to *Imprint* resulted in an “enjoyable sound at the right side of head in between temporal and eyebrow area and feeling more relaxed in my head. Strong effect of tone on the right: feel a difference in ‘state of mind’ straight away!” With *Imprint* she also reported “experiencing waves, streams and light, with sensations again on the left and middle of my forehead. Lots of energy above inside/middle of head.”

Concentration seemed to produce a physical aftereffect on her eyes, and tension in her ears and jaws when the exercise ended.

HUMAN PLUS

The “here and now effect of Hemi-Sync is good,” she said, but it was hard to remember to use the reinforcing *H-PLUS* Function Commands such as Plus Focus, Plus Flow Better, and Plus Imprint in everyday life. “Applying the Plus Imprint code while learning Greek vocabulary did not seem to be really fruitful,” she reported.

Hemi-Sync effects decreased when she was with companions or out of her home environment due to increased external stimulation.

On a more positive note, after listening to *Brain: Support and Maintenance*, she had a passing feeling that she described as being “as if I am once again working as pleasantly as before the accident.”

Psychological /Emotional Results

The subject described herself as being analytical and needing more confidence in the process because she was doubtful and skeptical about the effectiveness of the *H-PLUS* encodings (Function Commands). She felt it was important to try to let go of belief systems and to feel more trust in the process. She reported, “Every once in a while the little demon/devil appears, that tries to tackle the effects of working with Hemi-Sync, saying that it’s all only

imagination, ‘just’ some kind of Rational Emotive Therapy, etc., all in all undermining the ... effect.”

H-PLUS Let Go was introduced to assist in releasing doubts and opening to new possibilities, and she had some breakthroughs. She also became aware that she had had a negative stream of thought inside her head during depressive periods in the past. *Imprint* and *Let Go* allowed her to break through that resistance. Afterward she reported, “Lots of light coming into [my] head.” At such moments she had no more desire to analyze. “It’s as good as it goes,” she said.

Sometimes the subject felt insecure and vulnerable in her environment. There were some intrusions in her life that she no longer welcomed. To help strengthen her energy, power, and intention, we reviewed a visualization technique from the *EXCURSION* course, the Resonant Energy Balloon (REBAL). The REBAL was quite effective for her, both while driving and while listening to Hemi-Sync, especially *H-PLUS*. With the REBAL, real “pressure/resistance/protection appear to arise” around her head. While at home, her ability to ignore outside distractions was enhanced. She heard the CD sounds more clearly and sometimes she entered another “state of mind.”

Discussion

Although the subject still found it difficult to concentrate, to store instructions mentally, and to do more than one task at a time, she reported being able to accomplish more since her exposure to Hemi-Sync. Cognitively strenuous tasks were not sufficiently alleviated by the listening regimen but little things had improved. She had more self-confidence and was able to function more independently. The deep relaxation relieved stress and anxiety, an important consideration in improved quality of life and sense of well-being.

The strong physical sensations in the subject’s head while listening to binaural beats are evidence of an effect. It would be worthwhile to pursue this aspect further with other TBI subjects.

The psychological and emotional breakthroughs were significant. The subject was surprised by the sudden glimpses and recall of forgotten events. Her “peak” experiences in expanded states of awareness were frequent and seemed to result in beneficial insights and shifts in her perspectives about her life and her own process.

She concluded that it was “definitely worth continuing to listen to Hemi-Sync” and remarked that “not every aspect of living is positively influenced but that may be asking too much. Rome wasn’t built in a day either.”

The isolation of a Hemi-Sync response is possible, since it was a new variable introduced into a medically documented case with a long, stable history of old TBI symptoms resulting from a car accident in 1996. Considering the severity of the symptoms, the subject’s response was remarkable. The detailed subject self-reports and the University of Amsterdam National Memory Test—although not ideal—do provide some evidence of a positive effect. Future studies could incorporate more rigorous controls and testing, which would facilitate drawing additional conclusions.

The subject particularly expressed the wish that this study could be helpful to other researchers, therapists, and TBI patients. It is our hope that this small project will inspire others to undertake much-needed formal, controlled, scientific research to further investigate the capability of binaural-beat exercises to improve the quality of life for TBI patients.

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Notes

1. Signe Klepp, “Effects of Binaural-Beat Stimulation on Recovery Following Traumatic Brain Injury: A Pilot Study,” *Hemi-Sync Journal* 23, nos. 3 & 4 (summer/fall 2005), <http://www.monroeinstitute.org/journal/effects-of-binaural-beat-stimulation-on-recovery-following-traumatic-brain-injury-a-pilot-study-2/> (accessed July 11, 2010).
2. F. Holmes Atwater, “Inducing States of Consciousness with a Binaural Beat Technology,” in *The Monroe Institute Encyclopedia of Consciousness*, http://www.monroeinstitute.org/wiki/index.php/Inducing_States_of_Consciousness_with_a_Binaural_Beat_Technology (accessed July 11, 2010).
3. University of Amsterdam, “National Memory Test,” <http://memory.uva.nl/geheugentest/> (accessed July 11, 2010).



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